

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57	*	MARION	7	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1  
2 SHEETS

# 61-3HB-1HDF Contract Number: 76C17

**GENERAL NOTES**

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/L. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6. See Special Provision "Cleaning and Painting New Metal Structures".

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Fasteners shall be high strength bolts. Flange and web splice holes shall be  $1\frac{5}{16}$ "  $\phi$  for  $7/8$ "  $\phi$  bolts except as noted.

Diaphragm connection holes shall be  $1\frac{5}{16}$ "  $\phi$  for  $3/4$ "  $\phi$  bolts. Two hardened washers shall be required at diaphragm connections.

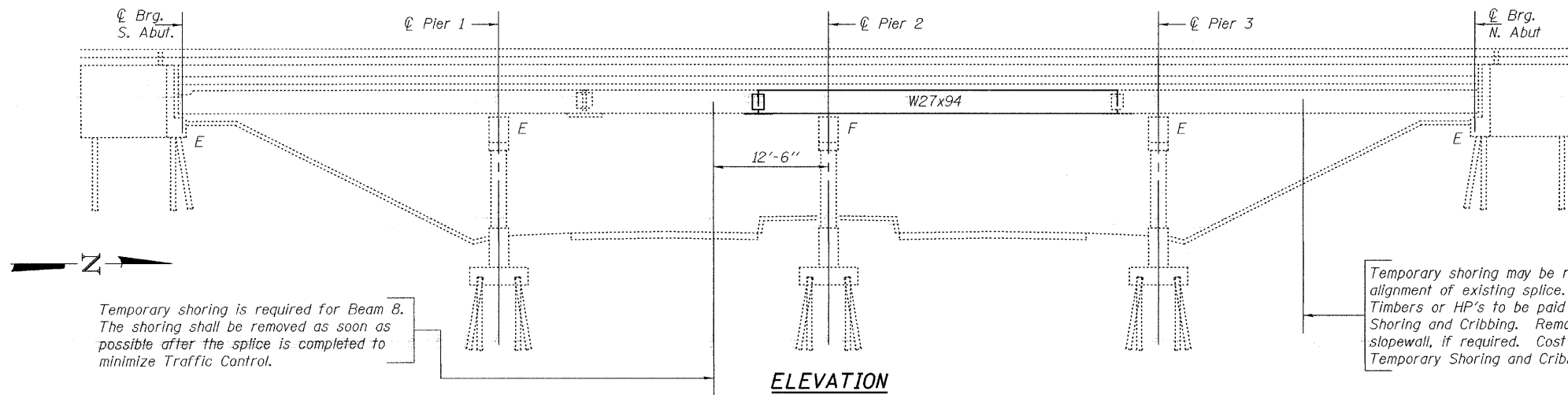
The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System".

The Contractor shall grind all cracked welds parallel to the direction of the existing weld and not perpendicular to the weld.

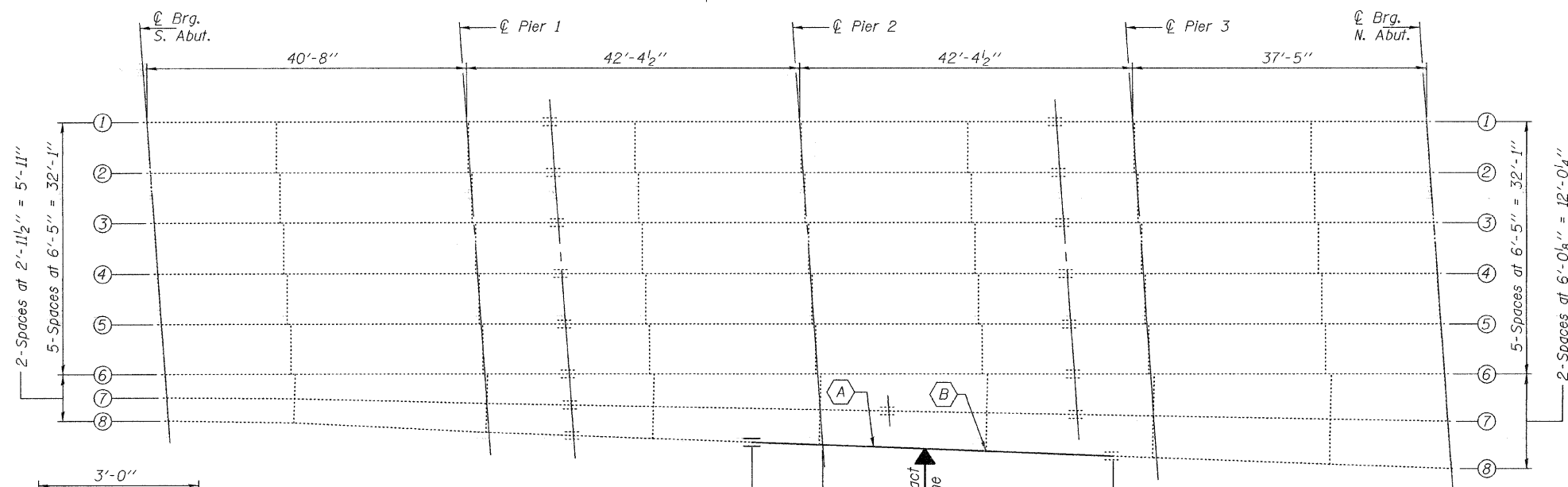
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

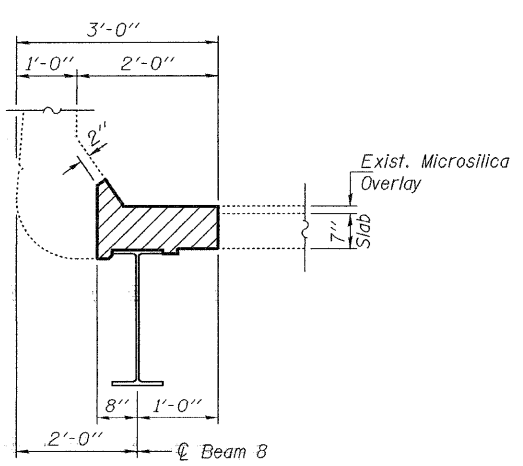


**ELEVATION**

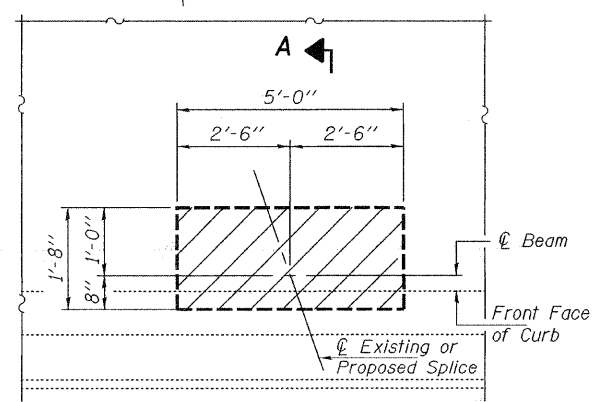


**PLAN**

- A - Remove and Replace Beam
- B - Bottom Clip Angle to be replaced.



**SECTION A-A**



**TYPICAL CONCRETE SURFACE REMOVAL AND REPLACEMENT**

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut  $3/4$ " prior to the removal of concrete.

Reinforcement shall be cut only if required for fitting bolts. Cut reinforcement shall be spliced as directed by the Engineer. Cost shall be included with Concrete Removal.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.7
Concrete Superstructure	Cu. Yd.	0.7
Furnishing and Erecting Structural Steel	Pound	4720
Temporary Slab Support System	L.S.	1
Temporary Shoring and Cribbing	L.S.	1
Structural Steel Removal	Pound	4430

EXISTING BEAM REACTION TABLE	
	Cent. New Splice
R $\phi$	(k) 35
R $\angle$	(k) 39
Imp.	(k) 12
R (Total)	(k) 86

DESIGNED Victor H. Veliz  
CHECKED SITAL BHARTA VHV  
DRAWN Steffen  
CHECKED VHV SJB

EXAMINED *[Signature]*  
PASSED *[Signature]*

JULY 28, 2008

ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES



EXPIRES 11-30-2008

**PLAN & ELEVATION**  
**FAI RT. 57**  
**MARION COUNTY**  
**SN 061-0053**